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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,157	04/04/2001	John J. Hart III	E00366/70005 JNA	4012

23628 7590 01/06/2005  
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EXAMINER
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PYZOCHA, MICHAEL J

ART UNIT	PAPER NUMBER
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2137

DATE MAILED: 01/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/826,157	HART ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Michael Pyzocha	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-129 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 112-129 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-111 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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**DETAILED ACTION**

1. Claims 1-129 are pending

***Election/Restrictions***

2. Claims 1-111 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected method for securely providing title data to a customer, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 12/01/2004 because no argument about the merits of the election was made.

***Specification***

3. The abstract of the disclosure is objected to because the abstract is longer than the maximum length. Correction is required. See MPEP § 608.01(b).

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 112-129 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point

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out and distinctly claim the subject matter which applicant regards as the invention.

6. It is unclear if the term "time/frequency" is relating to "time and frequency," "time or frequency," or "time and/or frequency." It will be assumed to mean "time or frequency" for the purposes of examination for prior art.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 112, 115-129 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koch et al ("Towards Robust Hidden Image Copyright Labeling"), further in view of Van Allen (U.S. 6,101,213), and further in view of RFC 1750.

As per claim 112, Koch et al discloses scanning the title data to determine a plurality of placement locations (see page 2 last paragraph), and including customer identification data with the watermark (see page 2 first paragraph).

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Koch et al fails to disclose multiple time/frequency modulation and number relationships for modulating at least a portion of the title data at the plurality of locations, and providing the watermarked titled data.

However, Van Allen teaches multiple time/frequency modulation and number relationships for modulating at least a portion of the title data at the plurality of locations, and providing the watermarked titled data (see column 11 lines 5-14 where the CWSK modulation can be one of the described in column 10 lines 29-33).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use Van Allen's method of time/frequency modulation to embed the label (watermark) of Koch et al.

Motivation to do so would have been to allow for secure, inexpensive data communication (see Van Allen column 6 lines 9-10).

The modified Koch et al and Van Allen system fails to disclose randomly selecting a time/frequency modulation and number relationship.

However, RFC teaches the advantages of using randomness (see page 1).

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At the time of the invention it would have been obvious to a person of ordinary skill in the art to use RFC's method of randomness to select a time/frequency modulation number relationship of the modified Koch et al and Van Allen system.

Motivation to do so would have been that randomness improves the security.

As per claim 115-116, the modified Koch et al, Van Allen and RFC system discloses decoding at least portion of the audio title data (see Van Allen column 16 lines 18-27 and column 11 lines 5-14).

As per claim 117, the modified Koch et al, Van Allen and RFC system discloses the scanning step includes scanning the audio title data to determine the plurality of locations where one of a frequency deviation between channels of audio title data is less than a predetermined frequency deviation and time intervals within the audio title data for the time-frequency modulating the audio title data where the time/frequency modulating of the audio title data is not discernible to a human ear (see Koch et al page 2).

As per claim 118, the modified Koch et al, Van Allen and RFC system discloses the step of randomly selecting includes randomly selecting from the plurality of placement locations,

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randomly selected locations where the audio title data will be time/frequency modulated (see Koch et al page 2).

As per claim 119, the modified Koch et al, Van Allen and RFC system discloses the discloses the step of modulating is used to insert the customer identification data into the audio title (see Koch et al page 2).

As per claims 120-121, the modified Koch et al, Van Allen and RFC system discloses selecting a reference and randomly changing the reference and watermarked channels (see Van Allen Column 11 lines 15-32 and Koch et al page 2).

As per claims 122-123, the modified Koch et al, Van Allen and RFC system discloses encoding watermarked audio title data and combining watermarked title data with the remainder of the audio title data (see Van Allen column 2 lines 1-8).

As per claim 124, the modified Koch et al, Van Allen and RFC system discloses combining the watermarked audio title data with corresponding video data to provide the watermarked data (see Koch et al page 3 and Van Allen column 16 lines 18-27).

As per claim 125, the modified Koch et al, Van Allen and RFC system discloses storing reference title data for use when decoding the watermarked title data (see Van Allen column 11 lines 5-14).

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As per claim 126, Official Notice is taken that it would have been obvious at the time of the invention to one skilled in the art to burn a selected medium with the watermarked title data. Motivation to do so would have been to allow for the distribution of the watermarked data.

As per claim 127, the modified Koch et al, Van Allen and RFC system discloses transmitting the watermarked title data to a customer (see Van Allen column 11 lines 5-14).

As per claim 128, the modified Koch et al, Van Allen and RFC system discloses receiving a decryption key and decrypting encrypted title data to provide the title data (see Koch et al page 2).

As per claim 129, the modified Koch et al, Van Allen and RFC system discloses the step of decoding encoded title data to provide the title data (see Van Allen column 11 lines 5-14).

9. Claims 113-114 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Koch et al, Van Allen and RFC system as applied to claim 112 above, and further in view of Mizikovsky (U.S. 5,748,734).

As per claim 113, the modified Koch et al, Van Allen, and RFC system discloses generating a watermarking key that is a combination of the customer identification data, and the randomly selected time/frequency modulation and number



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relationship (see Van Allen column 11 lines 5-14 and Koch et al page 2).

The modified Koch et al, Van Allen, and RFC system fails to disclose storing the watermarking key in a secure database.

However, Mizikovsky teaches storing a key in a secure database (see column 7 lines 57-67).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to store the modified Koch et al, Van Allen and RFC system's key in the secure database of Mizikovsky.

Motivation to do so would have been to allow for the verification of the key (see Mizikovsky column 6 line 57 through column 7 line 13).

As per claim 114, the modified Koch et al, Van Allen, RFC, and Mizikovsky system discloses the step of generation the watermarking key includes generating a unique watermark key for each watermarked title data (see Koch et al page 2).

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**Conclusion**

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Girod et al (US 5809139) discloses a method for frequency modulation of compressed video, Venkatesan et al (US 6801999) discloses time and frequency modulation for watermarks, Levy (US 20010044899) discloses watermarking with spatial, time and/or frequency attributes, Petrovic et al (US 6737957) discloses audio watermarking in the time/frequency/space domain.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Pyzocha whose telephone number is (571) 272-3875. The examiner can normally be reached on 7:00am - 4:30pm first Fridays of the bi-week off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJP

A handwritten signature in cursive script, reading "Andrew Caldwell".

**ANDREW CALDWELL  
SUPERVISORY PATENT EXAMINER**